

AMENDMENTS TO THE CLAIMS:

These claims will replace all prior versions of claims in the present application.

LISTING OF CLAIMS:

1. (Currently Amended) A corrosion resistant metal made thermal type mass flow rate sensor comprising:~~characterized by being equipped with~~
a sensor part-(1) comprising
a corrosion resisting metal substrate having a fluid contacting surface; (2) and
a thin film (F)-forming a temperature sensor; (3) and
a heater-(4) mounted on ~~at~~ the rear face side of the fluid contacting surface of the ~~said~~-corrosion resistant metal substrate-(2).

2. (Currently Amended) A corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 1, further comprising:~~wherein~~
a sensor base-(13) equipped with ~~the~~ a sensor part installed thereupon; (1),
a fluid inlet for~~to make~~ fluids flowing in;,
a fluid outlet for~~to make~~ fluids flowing out;,
~~and~~-a body; and
a metal gasket fastened to the sensor base; wherein (21)
the body comprises ~~equipped with~~ a flow passage formed therein for communicating ~~on~~ between, and connecting, the fluid inlet and the fluid outlet; ~~are connected,~~
and a strain applied to the ~~said~~ sensor part-(1) when fastening ~~the~~ a metal gasket to the sensor base (27) is suppressed by a relatively raising stiffness of the material of the sensor base immediately thereupon against which the said metal gasket-(27) fastens to secure hermticity hermeticity between the sensor base and the body.

3. (Currently Amended) A corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 1, ~~or Claim 2~~ wherein thea corrosion resistant metal substrate (2) is formed with thickness of less than 150 μm .

4. (Currently Amended) A corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 1, ~~or Claim 3~~ wherein further comprising:

a sensor base (13) equipped with thea sensor part (1) installed thereupon to secure hermeticity, and thea corrosion resistant metal substrate is (2) are fastened hermetically to the sensor base by welding.

5. (Currently Amended) A corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 1, ~~Claim 2, Claim 3 or Claim 4~~ wherein thea thin film comprises (F) is constituted by

and insulation film (5) formed on the rear face side of the fluid contacting surface ~~face~~ of the corrosion resistant metal substrate; (2);

a metal film (M) ~~to forming~~ thea temperature sensor on the insulation film; (3) and

a heater (4) formed ~~thereupon~~ the insulation film; and

a protection film disposed (6) to cover the insulation film (5) and the metal film (M).

6. (Currently Amended) A fluid supply device comprising ~~wherein a corrosion resistant metal made flow rate sensor is employed~~ characterized by a corrosion resistant metal made thermal type mass flow rate sensor as claimed in ~~either one or more of~~ Claims 1, ~~wherein~~ 5 inclusive the corrosion resistant metal made thermal type mass flow rate sensor

~~is being~~ mounted on a fluid controller, to check ~~the~~ flow rate appropriately at the time of ~~the~~ fluid control.

7. (NEW) A corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 2, wherein the corrosion resistant metal substrate is formed with thickness of less than 150 μm .

8. (NEW) A corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 7, wherein the sensor base and the corrosion resistant metal substrate are fastened hermetically by welding.

9. (NEW) A corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 3, wherein the sensor base and the corrosion resistant metal substrate are fastened hermetically by welding.

10. (NEW) A corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 2, wherein the thin film comprises

an insulation film formed on the rear face side of the fluid contacting surface of the corrosion resistant metal substrate;

a metal film forming the temperature sensor on the insulation film;

a heater formed on the insulation film; and

a protection film disposed to cover the insulation film and the metal film.

11. (NEW) A corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 3, wherein the thin film comprises

an insulation film formed on the rear face side of the fluid contacting surface of the corrosion resistant metal substrate;

a metal film forming the temperature sensor on the insulation film;

a heater formed on the insulation film; and

a protection film disposed to cover the insulation film and the metal film.

12. (NEW) A corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 4, wherein the thin film comprises

an insulation film formed on the rear face side of the fluid contacting surface of the corrosion resistant metal substrate;

a metal film forming the temperature sensor on the insulation film;

a heater formed on the insulation film; and

a protection film disposed to cover the insulation film and the metal film.

13. (NEW) A fluid supply device comprising a corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 2, wherein the corrosion resistant metal made thermal type mass flow rate sensor is mounted on a fluid controller to check flow rate appropriately at the time of fluid control.

14. (NEW) A fluid supply device comprising a corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 3, wherein the corrosion resistant metal made thermal type mass flow rate sensor is mounted on a fluid controller to check flow rate appropriately at the time of fluid control.

15. (NEW) A fluid supply device comprising a corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 4, wherein the corrosion resistant metal made thermal type mass flow rate sensor is mounted on a fluid controller to check flow rate appropriately at the time of fluid control.

16. (NEW) A fluid supply device comprising a corrosion resistant metal made thermal type mass flow rate sensor as claimed in Claim 5, wherein the corrosion resistant metal made thermal type mass flow rate sensor is mounted on a fluid controller to check flow rate appropriately at the time of fluid control.